Patent Claims

1.   Wheel for goods wagons, with a measuring circle diameter of 330 –

760 mm, in particular 380 mm, whose wheel profile is described by the inner wheel

rim or tire front face, the inner wheel flange flank, top of the wheel flange, the outer

wheel flange flank, groove of the running profile, running surface, gradient of the

outer running surface section, outer bevelling of the running profile and outer wheel

rim or tire front face, <u>characterized in that</u> the wheel profile in the region of the

groove of the running profile and of the running surface is described by the following

coordinates ($X_{1\ to\ 4}$, $Y_{1\ to\ 4}$) in the solid coordinate system whose origin (x = 0, y = 0)

lies in the measuring circle plane, which coordinates lie between the ranges of values

indicated.

	X_{max}	X_{min}	Delta X		Y_{max}	Y_{min}	Delta Y
X_1	-39,791	-43,979	4,189	Y_1	15,683	14,189	1,494
X_2	-29,109	-32,173	3,064	Y_2	3,823	3,459	0,364
X_3	-15,398	-17,018	1,621	Y_3	1,098	0,994	0,105
X_4	-4,042	-4,468	0,426	Y_4	0,223	0,201	0,021

2.   Wheel according to claim 1, <u>characterized in that</u> the wheel profile in

the region of the groove of the running profile and running surface is described by the

following coordinates ($X_{1\ to\ 4}$, $Y_{1\ to\ 4}$ in the solid coordinate system, which

coordinates lie between the ranges of values indicated:

	X_{max}	X_{min}	Delta X		Y_{max}	Y_{min}	Delta Y
X_1	-40,628	-43,142	2,513	Y_1	15,384	14,488	0,896
X_2	-29,722	-31,560	1,838	Y_2	3,750	3,532	0,218
X_3	-15,722	-16,694	0,972	Y_3	1,077	1,015	0,063
X_4	-4,127	-4,383	0,255	Y_4	0,218	0,206	0,013

3.   Wheel according to claim 1 or 2, <u>characterized in that</u> the areas of the wheel profile lying between the individual coordinates are described by circle segments, wherein the course of the profile between the circle segments is constant.

4.   Wheel according to one of claims 1 to 3, <u>characterized in that</u> the groove of the running profile is described by a circle segment whose radius is between 15 and 18 mm.

5.   Wheel according to one of claims 1 to 4, <u>characterized in that</u> an area of the running surface which is described by a circle segment whose radius is between 80 and 84 mm connects to the groove of the running profile.

6.   Wheel according to claim 5, <u>characterized in that</u> an area adjoining the area of the running surface which adjoins the groove of the running profile connects to an area which is described by a circle segment whose radius is between 300 and 305 mm.

7.   Wheel set with wheels according to one of claims 1 to 6, wherein the wheel set has a wheel size which is between 1420 mm and 1425 mm.

8.   Wheel for goods wagons with a measuring circle diameter of 760 – 1000 mm, in particular 920 mm, whose wheel profile is described by the inner wheel rim or tire front face, the inner wheel flange flank, the top of the wheel flange, the outer wheel flange flank, the groove of the running profile, the running surface, the inclination of the outer running surface section, the outer bevelling of the running profile and outer wheel rim or tire front face, <u>characterized in that</u> the wheel profile in the region of the groove of the running profile and running surface is defined by the following coordinates ($X_{1 \text{ to } 4}$, $Y_{1 \text{ to } 4}$) in the solid coordinate system whose origin (x = 0, y = 0) lies in the measuring circle plane, which coordinates lie between the ranges of values indicated:

	X_{max}	X_{min}	Delta X		Y_{max}	Y_{min}	Delta Y
X_1	-37,311	-41,239	3,928	Y_1	14,157	12,808	1,348
X_2	-27,028	-29,873	2,845	Y_2	3,693	3,341	0,352
X_3	-13,175	-14,561	1,387	Y_3	0,954	0,863	0,091
X_4	-2,342	-2,589	0,247	Y_4	0,129	0,117	0,012

9.   Wheel according to claim 8, <u>characterized in that</u> the wheel profile in the region of the groove of the running profile and running surface is described by the following coordinates ($X_{1 \text{ to } 4}$, $Y_{1 \text{ to } 4}$) in the solid coordinate system, which coordinates lie between the ranges of values indicted:

	X_{max}	X_{min}	Delta X		Y_{max}	Y_{min}	Delta Y
X_1	-38,097	-40,453	2,357	Y_1	13,887	13,078	0,809
X_2	-27,597	-29,304	1,707	Y_2	3,623	3,411	0,211
X_3	-13,452	-14,284	0,832	Y_3	0,936	0,881	0,055
X_4	-2,392	-2,539	0,148	Y_4	0,127	0,120	0,007

10.   Wheel according to claim 8 or 9, <u>characterized in that</u> the areas of the wheel profile lying between the individual coordinates are described by circle segments, wherein the course of the profile between the circle segments is constant.

11.   Wheel according to one of claims 8 to 10, <u>characterized in that</u> the groove of the running profile is described by a circle segment whose radius is between 15 and 18 mm.

12.   Wheel according to one of claims 8 to 11, <u>characterized in that</u> an area of the running surface, which is described by a circle segment whose radius is between 80 and 84 mm, is connected to the groove of the running profile.

13.   Wheel according to claim 12, <u>characterized in that</u> an area adjoining the area of the running surface which adjoins the groove of the running profile connects to an area which is described by a circle segment whose radius is between 300 and 305 mm.

14.   Wheel set with wheels according to one of claims 8 to 13, wherein the wheel set has a wheel size which is between 1420 mm and 1425 mm.